



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1459
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/982,035	10/17/2001	Masakazu Masaki	5000-4963	7520
7590 06/09/2004				
MORGAN & FINNEGAN, L.L.P. 345 Park Avenue New York, NY 10154				
			EXAMINER KOCH, GEORGE R	
			ART UNIT 1734	
			FAPER NUMBER	

DATE MAILED: 06/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No. 09/982,035	Applicant(s) MASAKI ET AL.
Examiner George R. Koch III	Art Unit 1734

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 May 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 3-25 and 27-47 is/are pending in the application.
- 4a) Of the above claim(s) 19-24 and 35-40 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 41 is/are allowed.
- 6) ☒ Claim(s) 1, 3-18, 25, 27-34, 42-47 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 4/27/2004 has been entered.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 13-18, 25, 27-34, and 42-47 are rejected under 35 U.S.C. 102(b) as being anticipated by Clitheros (US Patent 4,564,410)

As to claim 1, Clitheros discloses an apparatus for processing a workpiece, especially a portion of an automobile body, comprising a processing device (item 16) and support device (see Figure 2 and 3) movably supporting the processing device, wherein the supporting device includes a slidably supported structure (for example, blocks 28, 34 or 36 - and see especially column 5, line 3, which indicates that some supporting structures are slidably mounted) and is movable during the processing operation relative to and along the portion of the automobile body being processed. The device of Clitheros provides the capability to manipulate the processing device in the X, Y, and Z axis, and thus is capable of processing a portion which includes a concave portion, wherein the processing device head (tip of item 16, see Figure 2) is movable relative to and along the concave portion while a tip of the processing head engages the concave portion.

As to claims 3, the apparatus is capable of being arranged and constructed such that movement of the automobile body causes the supporting device to move relative to the portion of the automobile body being processed. Clitheros discloses that the processing apparatus is movable towards the automobile body by motors (items 44, 74, 84 and 92, see entire specification, especially column 5 and 6).

As to claim 4, the apparatus is arranged and constructed such that the supporting device is movable relative to the portion of the automobile body being processed by moving both the automobile body and the supporting device. Clitheros discloses that the processing apparatus is movable towards the automobile body by motors (items 44, 74, 84 and 92, see entire specification, especially column 5 and 6).

As to claim 5, the processing device is movably supported on the supporting device in a width direction of the automobile body (see, for example, item 32, which permits width-wise movement under the operation of motor 44).

As to claim 6, Clitheros discloses a transverse direction driving device (item 44, driving motor) which moves the processing device (item 16) in a width direction of the automobile body.

As to claim 7, Clitheros discloses a position detector (sensor means not shown, see column 6, line 65 to column 7, line 31 for Figure 2, and also column 8, lines 1-52 for the embodiment in Figure 3) for detecting the relative positions of the supporting device and the portion of the automobile body being processed, wherein a transverse direction driving device (item 44) drives the supporting device based on detection signals generated by the position detector via the numerical controller.

As to claim 8, the processing device is movably supported on the supporting device in a vertical direction of the automobile body. Clitheros discloses side support blocks 34 and 36 and a motor (item 74 with connecting structures) for enabling this movement.

As to claim 9, Clitheros discloses a vertical driving device (item 74) for moving the processing device in a vertical direction with respect to the automobile body.

As to claim 10, Clitheros discloses a position detector (sensor means not shown, see column 6, line 65 to column 7, line 31 for Figure 2, and also column 8, lines 1-52 for the embodiment in Figure 3) for detecting the relative positions of the supporting device and the portion of the automobile body being processed, wherein a transverse direction

driving device (item 74) drives the supporting device based on detection signals generated by the position detector via the numerical controller.

As to claim 11, Clitheros discloses that the processing device is movably supported on the supporting device in a width and vertical direction of the automobile body. See sections cited in the rejections of claims 5 and 8 above.

As to claim 12, Clitheros discloses a transverse direction driving device and a vertical direction driving device. See sections cited in the rejection of claims 6 and 9 above.

As to claim 13, Clitheros discloses a position detector for detecting the relative positions of the workpiece and the supporting device, wherein the transverse direction driving device and the vertical direction driving device drive the processing device based on detection signals generated by the position detector. See sections cited in the rejections of claims 7 and 10 above.

As to claim 14, Clitheros discloses a support mechanism movably supporting the processing device (item 16) on the supporting device. The support mechanism can be interpreted as any or all of structures in Figures 2 and 3, such as item 28, items 34, and 36 their related substructures.

As to claim 15, Clitheros discloses that the support mechanism, for example, item 28, movably supports the processing device in a width direction of the automobile body (see, for example, the rejection of claims 5, 6 and 7 above).

As to claim 16, Clitheros discloses that the support mechanism, for example, item 28, movably supports the processing device in a vertical direction of the automobile body (see, for example, see rejection of claims 8, 9 and 10 above)

As to claim 17, Clitheros discloses that the support mechanism, for example, items 11, movably supports the processing device in a width direction and in a vertical direction of the automobile body. See rejections of claim 15 and 16 above.

As to claim 18, Clitheros discloses that the support mechanism includes a structure that is rotatably supported on the supporting structure via items 90 and 92 (see also column 6, lines 40-49).

As to claim 25, Clitheros discloses an apparatus for processing a workpiece, comprising a processing device (item 16) and support device (see Figure 2 and 3) movably supporting the processing device, wherein the supporting device includes a slidably supported structure (any of items 28, 34 and 36 - and see especially column 5, line 3, which indicates that some supporting structures are slidably mounted) and is movable during the processing operation relative to and along the portion of the workpiece being processed. The device of Clitheros provides the capability to manipulate the processing device in the X, Y, and Z axis, and thus is capable of processing a portion which includes a concave portion, wherein the processing device head (tip of item 16, see Figure 2) is movable relative to and along the concave portion while a tip of the processing head engages the concave portion.

As to claim 27, Clitheros discloses that the processing device is movably supported on the supporting device in a direction that is substantially parallel to a line

Art Unit: 1734

connecting the supporting device and the workpiece being processed. See rejection of claim 8 above. The line substantially parallel to the line connecting the supporting device and the portion of the workpiece being processed is considered the "vertical direction". (Note, if this line is considered the "width direction", see rejection of claim 5 above.)

As to claim 28, Clitheros discloses a first driving device for moving the processing device in a direction that is substantially parallel to the line connecting the supporting device and the portion of the workpiece being processed. See rejection of claim 9 above. (Note, if this line is considered the "width direction", see rejection of claim 6 above.)

As to claim 29, Clitheros discloses that the processing device is movably supported on the supporting device in a direction that is substantially parallel to a line that is orthogonal to a line connecting the supporting device and the workpiece being processed. See rejection of claim 5 above. The line substantially parallel to a line that is orthogonal to a line connecting the supporting device and the portion of the workpiece being processed is considered the "width direction". (Note, if this line is considered the "vertical direction", see rejection of claim 8 above.)

As to claim 31, Clitheros discloses that the processing device (item 16) is movably supported in a direction (i.e., similar to the vertical direction) that is substantially parallel to a line connecting the supporting device and the portion of the workpiece being processed and in a direction that is substantially parallel to a line orthogonal to the line connecting the supporting device and the portion of the workpiece

being processed. See rejection of claims 27 and 29 above, and see also citations in rejections of claims 11, 5 and 8 above.

As to claim 32, Clitheros discloses a first driving device (items 74) for moving the processing device in the direction (i.e., vertical direction) that is substantially parallel to the line connecting the supporting device and the portion of the workpiece being processed, and a second driving device (item 44) for moving the processing device in the direction (i.e., width direction) that is substantially parallel to the line orthogonal to the line connecting the supporting device and the portion of the workpiece being processed. See rejections of claims 28 and 30 above, and see also citations in rejections of claims 12, 6 and 9 above.

As to claim 33, Clitheros discloses that the processing device is movably supported (via item 28) on the supporting device in a direction opposite to a surface of the portion being processed.

As to claim 34, Clitheros discloses that the processing device is movably supported on the supporting device in a direction that is substantially orthogonal to a surface of the portion being processed (see item 84 and 92).

As to claim 42, Clitheros discloses that the portion of the automobile body being processed has a concave shape (see Figure 3, Item 104, and especially column 7, line 67 to column 8, line 1, which discloses "curved back lights", i.e., a concave shape). Furthermore, the apparatus of Clitheros is capable of processing a portion with opposing side walls and a bottom.

As to claim 43, Clitheros discloses a concave portion (see rejection of claim 42 above), and furthermore, the apparatus of Clitheros is capable of processing a portion with opposing side walls, and furthermore a bottom and tip of the processing head (tip of item 16) is capable of being moved as claimed (see column 7, line 32 to column 8, line 52).

As to claim 44, Clitheros discloses that the processing device comprises a nozzle for dispensing a strip of adhesive material (see column 8), i.e., a sealant. In any event, Clitheros is capable of performing the claimed function of dispensing the claimed material.

As to claim 45, Clitheros discloses that the portion of the automobile body being processed has a concave shape (see Figure 3, item 104, and especially column 7, line 67 to column 8, line 1, which discloses "curved back lights", i.e., a concave shape). Furthermore, the apparatus of Clitheros is capable of processing a portion with opposing side walls and a bottom.

As to claim 46, Clitheros discloses a concave portion (see rejection of claim 42 above), and furthermore, the apparatus of Clitheros is capable of processing a portion with opposing side walls, and furthermore a bottom and tip of the processing head (tip of item 16) is capable of being moved as claimed (see column 7, line 32 to column 8, line 52).

As to claim 47, Clitheros discloses that the processing device comprises a nozzle (item 16) for dispensing a strip of adhesive material (see column 8), i.e., a sealant. In

Art Unit: 1734

any event, Clitheros is capable of performing the claimed function of dispensing the claimed material.

Response to Arguments

4. Applicant's arguments filed 4/27/2004 have been fully considered but they are not persuasive.
5. Applicant argues that Clitheros does not disclose any slidably supported structures. However, this is not persuasive, as block 36 is slidably mounted on rod 46 (see Figure 2, for example, and specifically column 5, lines 3-6, which recite "slidably mounted").

Allowable Subject Matter

6. Claim 41 is allowed.
7. The following is an examiner's statement of reasons for allowance (As previously cited in the office action mailed 1/28/2004): As to claim 41, Svensson discloses the supporting structure with one arm for supporting the processing device and the first and second processing devices as claimed. Svensson also discloses vertical driving cylinders for each nozzle or processing device (see column 2, lines 65-67). Svensson discloses that the processing devices are spray nozzles. The spray nozzles are "air spray" nozzles, and are capable of functioning as air guns.

However, Svensson does not disclose the first and second transverse driving cylinders, Svensson merely discloses one transverse driving cylinder (item 27) which cooperates with the frame which supports the

Furthermore, Okuda (US Patent 5,085,374) discloses two arms (item 33, see especially Figure 3). The support structures for each nozzle as shown in Figure 3 are analogous to the first and second follower frames. However, neither Svensson or Okuda does not disclose that each arm has a transverse driving cylinder and a vertical driving cylinder. Furthermore, neither Svensson or Okuda disclose that the first and second follower frames respectively comprise first, second and third transversely disposed frames, wherein the second transversely disposed frame of the first follower frame is coupled to an end portion of the first arm, and the second transversely disposed frame of the second follower frame is coupled to an end portion of the second arm.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to George R. Koch III whose telephone number is (571) 272-1230 (TDD only). If the applicant cannot make a direct TDD-to-TDD call, the applicant can communicate by calling the Federal Relay Service at 1-800-877-8339 and

Art Unit: 1734

giving the operator the above TDD number. The examiner can normally be reached on M-Th 10-7.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



GRK

June 7th, 2004

George R. Koch III
Patent Examiner
Art Unit 1734